Automation 18 - MCQ/MRQ (KC)



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Introduction

We have a way forward in the world of Quark





BPP-9541: ACCA - QnA

MCQ/MRQ - Regression test file

1 General output overview



Illustration 1: Output for MCQs

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

(%) Sun

((°)) Warfare

(%) Youth

Solution

The correct answer is: Warfare

This is the question debrief.

Athena represented the disciplined, strategic side of war, in contrast to her brother Ares, the patron of violence, bloodlust, and slaughter. Athena was believed to only support those fighting for a just cause and was thought to view war primarily as a means to resolve conflict.



Illustration 2: Output for MRQs

1 This is the first question scenario.

Required

This is the first question requirement. Which of the following were among Athena's major symbols?

391110013.		
	Olive trees	
	Owls	
	Eagles	
	Snakes	

2 This is the second question requirement. Which of the following were among Artemis' major symbols?

Huntina	

Lyre

- Moon
- Raven

Solution

- 1 The correct answers are:
 - · Olive trees
 - Owls
 - Snakes

This is the question debrief. Eagles were a symbol of Hebe, goddess of youth.

- 2 The correct answers are:
 - · Hunting knives
 - Moon

Response Option	Explanation
Lyre	The lyre was a symbol of Apollo, Artemis' twin brother.
Raven	The raven was a symbol of Apollo, Artemis' twin brother.

This is the question debrief.

2 Test scenarios

2.1 Illustrations: QnAs with only MCQs/MRQs



Illustration 3: 1 question (scenario)

This is the question scenario. Athena was the goddess of wisdom, handicraft and what other area?

Required

- (%) Sun
- ((°)) Warfare
- (%) Youth

Solution

The correct answer is: Warfare

This is the question debrief.



Illustration 4: 1 question (requirement, response debriefs)

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (°) Sun
- ((°)) Warfare



(%) Youth

Solution

The correct answer is: Warfare

Response Option	Explanation
Sun	Apollo was the Greek god of the sun.
Warfare	Athena was the Greek goddess of warfare.
Youth	Hebe was the Greek goddess of youth.

This is the question debrief.



Illustration 5: 1 question, 1 sub-question

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- ((°)) Warfare
- (%) Youth
- (a) This is the sub-question scenario.

Required

This is the sub-question requirement. Which of the following were among Hermes' major symbols?

- Flaming torch
- Winged sandals
- Tortoise

Solution

The correct answer is: Warfare

- (a) The correct answers are:
 - · Winged sandals
 - Tortoise

This is the sub-question debrief.



Illustration 6: 1 question, 2 sub-questions

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- ((°)) Warfare



- (%) Youth
- (a) This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
 - Flaming torch
 - Winged sandals
 - Tortoise
- (b) This is the second sub-question scenario.

Required

This is the second sub-question requirement. Which of the following were among Artemis' major symbols?

- (%) Lyre
- (°) Raven
- ((°)) Moon

Solution

The correct answer is: Warfare

This is the question debrief.

- (a) The correct answers are:
 - Winged sandals
 - Tortoise

This is the first sub-question debrief.

(b) The correct answer is: Moon



Illustration 7: 1 question, 2 sub-questions (response debriefs)

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- ((°)) Warfare
- (%) Youth
- (a) This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
 - Flaming torch
 - Winged sandals
 - Tortoise
- (b) This is the second sub-question requirement. Which of the following were among Artemis' major symbols?
 - (%) Lyre
 - (°) Raven
 - (%) Moon

Solution

The correct answer is: Warfare



Response Option	Explanation
Sun	Apollo was the Greek god of the sun.
Youth	Hebe was the Greek goddess of youth.

This is the question debrief.

- (a) The correct answers are:
 - · Winged sandals
 - Tortoise

Response Option	Explanation
Flaming torch	This was a symbol of Ares, the Greek god of war.
Winged sandals	Hermes is often portrayed wearing these.

This is the first sub-question debrief.

(b) The correct answer is: Moon



Illustration 8: 2 questions

1 This is the first question scenario. Which of the following were among Athena's major symbols?

Required

- Olive trees
- Owls
- Eagles
- Snakes
- 2 This is the second question requirement. Which of the following were among Artemis' major symbols?
 - Hunting knives
 - Lyre
 - Moon
 - Raven

Solution

- 1 The correct answers are:
 - · Olive trees
 - Owls
 - Snakes

This is the question debrief. Eagles were a symbol of Hebe, goddess of youth.

- 2 The correct answers are:
 - · Hunting knives
 - Moon





Illustration 9: 2 questions, 2 sub-questions (response debriefs)

1 This is the first question scenario. Which of the following were among Athena's major symbols?

1111	s is the first question scenario. Which of the following were among Athena's major symbol
Re	quired
	Olive trees
	Owls
	Eagles
	Snakes
(a)	This is the first sub-question requirement. Who was the Greek god of the of the sun?
	(°) Apollo
	(Io) Ares
(b)	This is the second sub-question requirement. Who was the Greek goddess of the hunt?
	(°) Athena
	(°) Artemis
Thi	s is the second question requirement. Which of the following were among Artemis' major
syr	mbols?
	Hunting knives
	Lyre

Solution

2

- 1 The correct answers are:
 - · Olive trees

Moon Raven

- Owls
- Snakes

This is the question debrief. Eagles were a symbol of Hebe, goddess of youth.

(a) The correct answer is: Apollo

Response Option	Explanation
Apollo	Apollo was also the god of poetry and healing.
Ares	Ares was the Greek god of war.

This is the first sub-question debrief.

- (b) The correct answer is: Artemis
- 2 The correct answers are:
 - Hunting knives
 - Moon

Response Option	Explanation
Lyre	The lyre was a symbol of Apollo, Artemis' twin brother.



Response Option	Explanation
Raven	The raven was a symbol of Apollo, Artemis' twin brother.

2.2 Illustrations: QnAs with a mix of MCQs/MRQs and non-MCQs/MRQs



Illustration 10: 1 question (MCQ), 1 question (non-MCQ)

1 This is the first question scenario.

Required

This is the first question requirement. Athena was the goddess of wisdom, handicraft and what other area?

(%) Sun

(10) Warfare

(%) Youth

2 This is the second question scenario.

Required

This is the second question requirement.

Solution

1 The correct answer is: Warfare

This is the first question debrief.

2 This is the second question debrief.



Illustration 11: 1 question (MCQ), 1 sub-question (MCQ), 1 question (non-MCQ)

1 This is the first question scenario. Which of the following were among Athena's major symbols?

Required

		٠	
ı Oii	ve	ure	ees

Owls

l Eagles

Snakes

(a) This is the sub-question requirement. Who was the Greek goddess of the of the hunt?

(%) Athena

(°) Artemis

2 This is the second question requirement.

Solution

- 1 The correct answers are:
 - Olive trees



- Owls
- Snakes

This is the question debrief.

- (a) The correct answer is: ArtemisThis is the sub-question debrief.
- 2 This is the second question debrief.

2.3 Activities: QnAs with only MCQs/MRQs



Activity 1: 1 question (scenario)

This is the question scenario. Athena was the goddess of wisdom, handicraft and what other area?

Required

- (%) Sun
- (°) Warfare
- (%) Youth



Activity 2: 1 question (requirement, response debriefs)

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (°) Sun
- ((°)) Warfare
- (%) Youth



Activity 3: 1 question, 1 sub-question

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- (°) Warfare
- (%) Youth
- (a) This is the sub-question scenario.

Required

This is the sub-question requirement. Which of the following were among Hermes' major symbols?

- Flaming torch
- Winged sandals





Activity 4: 1 question, 2 sub-questions

This is the question scenario.

Required

This	is	the	question	requirement.	Athena	was the	goddess	of wisdom,	handicraft	and	what	othe
arec	?											

- (%) Sun
- ((°)) Warfare
- (%) Youth
- (a) This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
 - Flaming torch
 - Winged sandals
 - Tortoise
- (b) This is the second sub-question scenario.

Required

This is the second sub-question requirement. Which of the following were among Artemis' major symbols?

- (%) Lyre
- (%) Raven
- (%) Moon



Activity 5: 1 question, 2 sub-questions (response debriefs)

This is the question scenario.

Required

This is the question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- ((°)) Warfare
- (%) Youth
- (a) This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
 - Flaming torch
 - Winged sandals
 - Tortoise
- (b) This is the second sub-question requirement. Which of the following were among Artemis' major symbols?
 - (%) Lyre
 - (°) Raven
 - (°) Moon





Activity 6: 2 questions

1	This is the first question scenario. Which of the following were among Athena's major symbols:
	Required Olive trees Owls Eagles Snakes
2	This is the second question requirement. Which of the following were among Artemis' major symbols? Hunting knives Lyre Moon Raven
A	tivity 7: 2 questions, 2 sub-questions (response debriefs)
1	This is the first question scenario. Which of the following were among Athena's major symbols's Required Olive trees Owls Eagles Snakes (a) This is the first sub-question requirement. Who was the Greek god of the of the sun? (a) Apollo (b) Ares (b) This is the second sub-question requirement. Who was the Greek goddess of the of the hunt? (c) Athena (c) Artemis
2	This is the second question requirement. Which of the following were among Artemis' major symbols? Hunting knives Lyre Moon Raven

2.4 Activities: QnAs with a mix of MCQs/MRQs and non-MCQs/MRQs



Activity 8: 1 question (MCQ), 1 question (non-MCQ)

1 This is the first question scenario.



Required

This is the first question requirement. Athena was the goddess of wisdom, handicraft and what other area?

- (%) Sun
- ((°)) Warfare
- (%) Youth
- 2 This is the second question scenario.

Required

This is the second question requirement.



Activity 9: 1 question (MCQ), 1 sub-question (MCQ), 1 question (non-MCQ)

1 This is the first question scenario. Which of the following were among Athena's major symbols?

Required

- Olive trees
- Owls
- **Eagles**
- Snakes
- (a) This is the sub-question requirement. Who was the Greek goddess of the of the hunt?
 - (°) Athena
 - (°) Artemis
- 2 This is the second question requirement.



Activity answers

Activity 1: 1 question (scenario)

The correct answer is: Warfare

This is the question debrief.

Activity 2: 1 question (requirement, response debriefs)

The correct answer is: Warfare

Response Option	Explanation		
Sun	Apollo was the Greek god of the sun.		
Warfare	Athena was the Greek goddess of warfare.		
Youth	Hebe was the Greek goddess of youth.		

This is the question debrief.

Activity 3: 1 question, 1 sub-question

The correct answer is: Warfare

This is the question debrief.

- (a) The correct answers are:
 - · Winged sandals
 - Tortoise

This is the sub-question debrief.

Activity 4: 1 question, 2 sub-questions

The correct answer is: Warfare

- (a) The correct answers are:
 - Winged sandals
 - Tortoise

This is the first sub-question debrief.

(b) The correct answer is: Moon

Activity 5: 1 question, 2 sub-questions (response debriefs)

The correct answer is: Warfare

Response Option	Explanation		
Sun	Apollo was the Greek god of the sun.		
Youth	Hebe was the Greek goddess of youth.		

This is the question debrief.

- (a) The correct answers are:
 - · Winged sandals
 - Tortoise



Response Option	Explanation		
Flaming torch	This was a symbol of Ares, the Greek god of war.		
Winged sandals	Hermes is often portrayed wearing these.		

This is the first sub-question debrief.

(b) The correct answer is: Moon

Activity 6: 2 questions

- 1 The correct answers are:
 - · Olive trees
 - Owls
 - Snakes

This is the question debrief. Eagles were a symbol of Hebe, goddess of youth.

- 2 The correct answers are:
 - · Hunting knives
 - Moon

Activity 7: 2 questions, 2 sub-questions (response debriefs)

- 1 The correct answers are:
 - Olive trees
 - Owls
 - Snakes

This is the question debrief. Eagles were a symbol of Hebe, goddess of youth.

(a) The correct answer is: Apollo

Response Option	Explanation		
Apollo	Apollo was also the god of poetry and healing.		
Ares	Ares was the Greek god of war.		

This is the first sub-question debrief.

- (b) The correct answer is: Artemis
- 2 The correct answers are:
 - · Hunting knives
 - Moon

Response Option	Explanation		
Lyre	The lyre was a symbol of Apollo, Artemis' twin brother.		
Raven	The raven was a symbol of Apollo, Artemis' twin brother.		

Activity 8: 1 question (MCQ), 1 question (non-MCQ)

1 The correct answer is: Warfare

This is the first question debrief.



2 This is the second question debrief.

Activity 9: 1 question (MCQ), 1 sub-question (MCQ), 1 question (non-MCQ)

- 1 The correct answers are:
 - Olive trees
 - Owls
 - Snakes

This is the question debrief.

- (a) The correct answer is: Artemis
 This is the sub-question debrief.
- 2 This is the second question debrief.



Test your learning

1		uestion (scenario). This is the question scenario. Athena was the goddess of wisdom, handicraft d what other area?
	Red	quired
	((o))	Sun
	((o))	Warfare
	((o))	Youth
2	god	uestion (requirement, response debriefs). This is the question requirement. Athena was the ddess of wisdom, handicraft and what other area?
		Warfare
	((^O))	Youth
3	1 qu	uestion, 1 sub-question. This is the question scenario.
	Red	quired
	This are	s is the question requirement. Athena was the goddess of wisdom, handicraft and what other a?
	((o))	Sun
	((o))	Warfare
	((o))	Youth
	(i)	This is the sub-question scenario.
		Required
		This is the sub-question requirement. Which of the following were among Hermes' major symbols?
		Flaming torch
		Winged sandals
		Tortoise
4	1 qı	uestion, 2 sub-questions. This is the question scenario.
	Rec	quired
This is the question requirement. Athena was the goddess of area?		s is the question requirement. Athena was the goddess of wisdom, handicraft and what other a?
	((o))	Sun
	((o))	Warfare
	((o))	Youth
	(i)	This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
		Flaming torch
		Winged sandals



Tortoise

(ii) This is the second sub-question scenario.

		Required
		This is the second sub-question requirement. Which of the following were among Artemis' major symbols?
		(ତଥି Lyre
		(%) Raven
		(%) Moon
		· x Wooli
5	1 qu	uestion, 2 sub-questions (response debriefs). This is the question scenario.
	Rec	quired
	This	s is the question requirement. Athena was the goddess of wisdom, handicraft and what other
	are	
	((o))	Sun
	((o))	Warfare
	((o))	Youth
	(i)	This is the first sub-question requirement. Which of the following were among Hermes' major symbols?
		Flaming torch
		Winged sandals
		Tortoise
	(ii)	This is the second sub-question requirement. Which of the following were among Artemis' major symbols?
		(%) Lyre
		(°) Raven
		(o) Moon
6	(a)	2 questions. This is the first question scenario. Which of the following were among Athena's major symbols?
		Required
		Olive trees
		Owls
		Eagles
		Snakes
	(b)	This is the second question requirement. Which of the following were among Artemis' major symbols?
		Hunting knives
		Lyre
		Moon
		Raven
		Raven
7	(a)	2 questions, 2 sub-questions (response debriefs). This is the first question scenario. Which of the following were among Athena's major symbols?
		Required
		Olive trees
		Owls
		Eagles
		Lagies



	l Snakes						
	(i) This is the first sub-question requirement. Who was the Greek god of the of the sun?						
	(°) Apollo						
	(o) Ares						
	(ii) This is the second sub-question requirement. Who was the Greek goddess of the hunt						
	(°) Athena						
	(°) Artemis						
(b)	This is the second question requirement. Which of the following were among Artemis' majo symbols?						
	Hunting knives						
	Lyre						
	Moon						
	Raven						
(a)	1 question (MCQ), 1 question (non-MCQ). This is the first question scenario.						
	Required						
	This is the first question requirement. Athena was the goddess of wisdom, handicraft and what other area?						
	(e) Sun						
	(10) Warfare						
	(1º) Youth						
(b)	This is the second question scenario.						
	Required						
	This is the second question requirement.						
(a)	1 question (MCQ), 1 sub-question (MCQ), 1 question (non-MCQ). This is the first question scenario. Which of the following were among Athena's major symbols?						
	Required						
	Olive trees						
	Owls						
	Eagles						
	Snakes						
	(i) This is the sub-question requirement. Who was the Greek goddess of the of the hunt?						
	(°) Athena						
	(o) Artemis						
(b)	This is the second question requirement.						



Appendix 1: Formulae, ratios and mathematical tables

Appendices

Appendix A: Formulae and ratios that you need to learn

Profitability ratios:

$$\mathsf{ROCE} = \frac{\mathsf{Profit}\,\mathsf{from}\,\mathsf{operations}\,(\mathsf{before}\,\mathsf{interest}\,\mathsf{and}\,\mathsf{tax})}{\mathsf{Capital}\,\mathsf{employed}}$$

Debt ratios include:

Gearing =
$$\frac{\text{Value of debt}}{\text{Value of equity (or debt + equity)}}$$

$$Interest\,cover = \frac{Profit\,from\,operations}{Interest}$$

Liquidity ratios:

$$Current ratio = \frac{Current assets}{Current liabilities}$$

Shareholder investor ratios include:

Dividend yield =
$$\frac{\text{Dividend per share}}{\text{Share price}} \times 100$$

Earnings per share (EPS) =
$$\frac{\text{Profits after tax - preference dividend}}{\text{Number of ordinary shares}}$$

Price to earnings ratio (P/E) =
$$\frac{\text{Share price}}{\text{EPS}}$$

Working capital ratios

Operating cycle = inventory days + receivable days - payables days

Inventory days = inventory/cost of sales × 365

Receivables days = trade receivables/(credit) sales × 365

Payables days = trade payables/(credit) purchases × 365

Sales to net working capital ratio = sales/net working capital (excl cash)



Cost of capital formulae:

$$K_d = \frac{I(1-t)}{P_0}$$

$$K_p = \frac{d}{p}$$

Other useful formulae to learn:

$$IRR = a\% + \left[\frac{NPV_a}{NPV_a - NPV_b} \times (b\% - a\%) \right]$$

Total shareholder return = $\frac{\text{dividend gain} + \text{capital}}{\text{share price at start year}}$

$$EAC = \frac{NPV \text{ of costs}}{Annuity factor for life of the project}$$

$$Profitability\ index = \frac{Present\ value\ of\ cash\ inflows\ (or\ NPVof\ the\ project)}{Present\ value\ of\ cash\ outflows}$$

Appendix B: Mathematical tables

Present Value Table



Annuity Table



Formula Sheet

Economic Order Quantity

$$= \sqrt{\frac{2C_0D}{C_H}}$$

Miller-Orr Model

Return point = Lower limit + $(\frac{1}{3} \times \text{spread})$

Spread =
$$3 \frac{\frac{3}{4} \times \text{transaction cost} \times \text{variance of cash flows}}{\text{Interest rate}} \frac{\frac{1}{3}}{3}$$

The Capital Asset Pricing Model

$$E(n) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_{a} = \left[\frac{V_{e}}{(V_{e} + V_{d}(1-T))}\beta_{e}\right] + \left[\frac{V_{d}(1-T)}{(V_{e} + V_{d}(1-T))}\beta_{d}\right]$$

The Growth Model

$$P_{O} = \frac{D_{O}(1+g)}{(r_{e}-g)}$$
 $r_{e} = \frac{D_{O}(1+g)}{P_{O}} + g$

Gordon's Growth Approximation

$$g = br$$

The weighted average cost of capital

WACC =
$$\left[\frac{v_e}{v_e + v_d}\right] k_e + \left[\frac{v_d}{v_e + v_d}\right] k_d (1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$



Purchasing Power Parity and Interest Rate Parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)}$$
 $F_0 = S_0$ $\times \frac{(1 + i_c)}{(1 + i_b)}$

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- 1. Error Code: -43 File not found. 0424 Present Value Table.eps
- 2. Error Code: -43 File not found. 0420 Annuity Table.eps